

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WAYNE S. DAVIS

Appeal No. 96-1182
Application 08/014,911¹

ON BRIEF

Before LYDDANE, MEISTER and STAAB, *Administrative Patent Judges*.
MEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL

Wayne S. Davis (the appellant) appeals from the final
rejection of claims 1, 3, 4, 6-9, 11-14 and 16-19.² Claims 2,

¹ Application for patent filed February 8, 1993.

² Independent claim 1 was amended subsequent to final
rejection by an amendment filed on December 19, 1994 (Paper No.
08).

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**PAT.&T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES**

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10, 15 and 20, the only other claims present in the application stand allowed.³ We affirm-in-part.

The appellant's invention pertains to an electrical connector having contacts contained in an insulated housing and a wiping surface which prevents the contacts from being wiped with insulation from the housing during mating connection with another, mating connector. Independent claim 1 is further illustrative of the appealed subject matter and reads as follows:

1. An electrical connector comprising: an insulative housing, conductive contacts within an interior of the housing, wiping surfaces on a mating end of the housing, conductive surfaces on the contacts being rearward of the wiping surfaces and offset laterally of the wiping surfaces to engage unwiped surface areas of mating contacts of another, mating connector, which mating contacts wipe against the wiping surfaces prior to engagement of the unwiped surface areas of the mating contacts with the conductive surface areas of the contacts, the wiping surfaces projecting along paths of mating insertion of the contacts, and being interposed between the contacts and a front edge of the housing.

The references of record relied on by the examiner are:

Roberts	3,760,335	Sep. 18, 1973
Asick et al. (Asick)	4,464,832	Aug. 14, 1984
Olsson	4,653,825	Mar. 31, 1987
Buchter et al. (Buchter)	5,085,601	Feb. 4, 1992

³ Claims 10 and 20 were allowed in the advisory action dated January 6, 1995 (Paper No. 9). On page 2 of the answer the examiner, upon further consideration, additionally allowed claims 5 and 15.

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Claims 1, 3, 4, 6-9, 11-14 and 16-19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view of Asick.

The examiner's rejection is explained on pages 3-5 of the answer. The arguments of the examiner in support of this rejection may be found on pages 5-11 of the answer while the arguments of the appellant in traversal thereof may be found on pages 3-11 of the brief and pages 1-4 of the reply brief.

OPINION

Initially we note that the appellant has stated on page 2 of the brief that certain of the claims on appeal stand or fall together in the following manner: (1) claims 1 and 4 as a first group, (2) claims 1 and 9 as a second group, (3) claims 11 and 14 as a third group and (4) claims 4 and 9 as a fourth group. Accordingly, claims 4 and 9 will stand or fall with representative claim 1 while claims 14 and 19 will stand or fall with representative claim 11. **See** 37 CFR § 1.192(c)(7).

We have carefully reviewed the appellant's invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellant in the brief and reply brief and by the examiner

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in the answer. As a consequence of this review, we will sustain the rejections under 35 U.S.C. § 103 of (1) claim 3 as being unpatentable over Roberts, Olsson or Buchter in view of Asick and (2) claims 11, 13, 14 and 19 as being unpatentable over Buchter or Olsson in view of Asick. We will not, however, sustain the rejections under 35 U.S.C. § 103 of (1) claims 1, 4, 6-9, 12 and 16-18 as being unpatentable over Roberts, Olsson or Buchter in view Asick and (2) claims 11, 13, 14 and 19 as being unpatentable over Roberts in view of Asick.

Considering first the rejection of claims 1, 4, 6-9, 12, 16 and 17 under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view Asick, each of these claims, either individually or by virtue of their dependency on claim 1, expressly requires that the wiping surfaces be interposed between the contacts and a front edge of the housing. For a teaching of this limitation the examiner relies on Asick, contending:

figure 6 of Asick et al., reveal[s] that the cam profiles 78 do [sic, are] indeed interposed between the contacts 80. Figure 7 of Asick et al. shows that wiping surfaces of such ramp profile[s] are also being positioned behind a front edge of the circuit

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board 60. Also, the broad language "interposed" as recited in claim 1 without setting forth specific positions of the contacts does not limit that the wiping surfaces can be positioned in between any portions of the contacts and a front edge of the circuit board. [See answer, page 6.]

We do not agree with the examiner's position. The examiner is correct in noting that Figure 6 of Asick clearly depicts the cam profiles 78 (which the examiner considers to be wiping surfaces) to be between the contacts 80. The problem is, however, these cam profiles are not interposed between the contacts and a front edge of the housing as the claims under consideration require. *The American Heritage Dictionary*⁴ defines "between" as -- 1. a. In the position or interval separating: *between the trees; between 11 o'clock and 12 o'clock.* -- and "interpose" as -- 1. a. To insert or introduce between parts. b. To place (one-self) between. --. Accordingly, the plain language of the claims require that the wiping surfaces be located or inserted at a position that separates the front edge from the contacts. There is absolutely nothing in Asick which either teaches or suggests such an arrangement. As clearly illustrated in Figs. 6 and 7 of Asick, the contacts 80 extend all

⁴ *The American Heritage Dictionary*, Second College Edition, 1982, Houghton Mifflin Company, Boston, MA.

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the way to the front edge and, therefore, the cam profiles 78 cannot possibly be considered to be located at a point that separates or lies between the front edge and the contacts. This being the case, we will not sustain the rejection of claims 1, 4, 6-9, 12, 16 and 17 under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view Asick.

Turning to the rejection of claim 3 as being unpatentable over Roberts, Olsson or Buchter in view of Asick, it is the appellant's position that:

Claim 3 recites that the contacts engage unwiped surface areas of mating contacts. In Buchter et al., Figs. 5A, 5B, 5C, the mating contacts 40' wipe insulating material 100 in front of the contacts 82. The only way in which the prior art teaches that unwiped surfaces will be attained, is by extending the contacts 80 past the cam profiles 78, as taught by Asick et al. Thus, claim 3 is the only teaching of attaining unwiped contact surfaces on mating contacts when a flange on [the] mating end of a housing provides ESD protection for contacts. [See brief, page 8.]

The appellant's contentions are not persuasive. Initially, we note that the appellant does not appear to argue that it would have been unobvious to combine the teachings of Roberts, Olsson or Buchter with those of Asick.⁵ In any event, Roberts in Figs. 4 and 10 teaches an electrical connector comprising an insulative

⁵ 37 CFR §§ 1.192(a) and 1.192(c)(8)(iv) require that all arguments relied on must be set forth in the brief.

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housing and electrical contacts 58,58' that are mounted on the mating ends of projecting members 34' which are located within the housing. Olsson in Fig. 8 teaches an insulative housing 10 and electrical contacts 50 that are mounted on the mating end of a projecting member 20,22 which is located within the housing. Buchter in Fig. 2 and 5A-5B discloses an insulative housing and electrical contacts 82 that are mounted on the mating ends of projecting members 74,76,78 that are located within the housing. On the other hand, Asick discloses a connector assembly wherein a plurality of contacts 80 are mounted on the mating end of projecting member 60. Asick also teaches cam profiles 78 (which can be considered to be wiping members) that are (1) offset from some of the conductive "areas" on the contacts (*i.e.*, those "areas" that lie between, and are rearward of, the cam profiles) and (2) aligned with the edge margins of the contacts, said cam profiles being provided on the mating end for the purpose of preventing undue wear (see, *e.g.*, column 3, lines 45-48). In our view, it would have been obvious to one having ordinary skill in the art to provide the mating end of either Roberts, Olsson or Buchter with a mating end as taught by Asick (the mating end of which includes cam profiles or wiping ramps 78) in order to achieve Asick's expressly stated advantage of preventing undue

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wear. In this regard, it should be noted that "[a]s long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor" (*In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992)) and all the utilities or benefits of the claimed invention need not be explicitly disclosed by the prior art references to render the claim unpatentable under section 103 (*see In re Dillon*, 919 F.2d 688, 692, 696, 16 USPQ2d 1897, 1901, 1904 (Fed. Cir. 1990) (*en banc*), *cert. denied*, 500 U.S. 904 (1991)). Moreover, "[t]he fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise have been obvious" (*Ex parte Obiaya*, 227 USPQ 58 (Bd. Pat. App. & Int. 1985), *aff'd. mem.*, 795 F.2d 1017 (Fed. Cir. 1986)).

As to the appellant's contention that in Asick the contacts 80 extend past the cam profiles 78 (and thus fail to achieve the advantage of ESD protection), we must point out that there is no claimed limitation which would preclude Asick's arrangement (e.g., there is no requirement that the wiping surface be between the front edge of the housing and the contacts). It is well

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settled that features not claimed may not be relied upon in support of patentability. *See In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982).

As to the appellant's contention that in Buchter the mating contacts wipe the insulating material in front of the contacts, we observe that nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

In view of the foregoing, we will sustain the rejection of claim 3 under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view of Asick.

Considering next the rejection of claims 11, 13, 14 and 19 as being unpatentable over Buchter or Olsson in view of Asick, it is the appellant's position that even if the teachings of Asick were combined with those of Olsson or Buchter, the result would not be a wiping surface that was closer to the shield than the contacts. We disagree. Viewing Fig. 2 of Buchter, if the mating end of Asick were substituted for the mating ends 74,76,78 of Buchter, the cam profiles or wiping surfaces on the uppermost portion of mating end 74 and the lowermost portion of mating end 78 would be closer to conductive shield 84 than to the contacts.

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Viewing Fig. 8 of Olsson, if the mating end of Asick were substituted for the mating end 20,22,50 of Olsson, the cam profiles or wiping surface would be closer to the shield 78 than the contacts. This being the case, we will sustain the rejection of claims 11, 13, 14 and 19 under 35 U.S.C. § 103 based on the combined disclosures of Buchter or Olsson and Asick.

Turning now to the rejection of claims 11, 13, 14 and 19 under 35 U.S.C. § 103 as being unpatentable over Roberts in view of Asick, each of these claims requires a conductive shield and the wiping surfaces to be arranged closer to the shield than the contacts. Neither Roberts nor Asick have a conductive shield, much less an arrangement wherein the wiping surface are closer to the shield than the contacts. This being the case, we will sustain not sustain the examiner's rejection of claims 11, 13, 14 and 19 under 35 U.S.C. § 103 based on the combined disclosures of Roberts and Asick.

Considering last the rejection of claim 18 under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view of Asick, it is readily apparent from viewing Figs. 5-7 of Asick that the cam profiles 78 do not cover the front tips of the contacts 80 as expressly required by this claim. Therefore, if either Roberts, Olsson or Buchter were modified in accordance with the teachings of Asick, the claimed invention would not

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result. Moreover, as we have noted above with respect to claim 11 (from which claim 18 depends), there is no teaching whatsoever of a conductive shield in Roberts. Accordingly, we will not sustain the examiner's rejection of claim 18 under 35 U.S.C. § 103 as being unpatentable over Roberts, Olsson or Buchter in view of Asick.

In summary:

The rejections under 35 U.S.C. § 103 of (1) claim 3 as being unpatentable over Roberts, Olsson or Buchter in view of Asick and (2) claims 11, 13, 14 and 19 as being unpatentable over Buchter or Olsson in view of Asick are affirmed.

The rejections under 35 U.S.C. § 103 of (1) claims 1, 4, 6-9, 12 and 16-18 as being unpatentable over Roberts, Olsson or Buchter in view Asick and (2) claims 11, 13, 14 and 19 as being unpatentable over Roberts in view of Asick are reversed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

WILLIAM E. LYDDANE
Administrative Patent Judge


JAMES M. MEISTER
Administrative Patent Judge

BOARD OF PATENT
APPEALS AND
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Lawrence J. Staab
LAWRENCE J. STAAB
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